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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.            |
|--|-------------|----------------------|---------------------------------|-----------------------------|
| 10/591,356   | 08/15/2007  | Soenke Habenicht     | US04 0144 US2                   | 9241                        |
| 65913  | 7550        | 10/06/2009           |                                 |                             |
| NXP, B.V.<br>NXP INTELLECTUAL PROPERTY & LICENSING<br>M/S41-SJ<br>1109 MCKAY DRIVE<br>SAN JOSE, CA 95131 |             |                      | EXAMINER<br><br>IM, JUNGHWAN M  |                             |
|  |             |                      | ART UNIT<br>2811                | PAPER NUMBER                |
|  |             |                      | NOTIFICATION DATE<br>10/06/2009 | DELIVERY MODE<br>ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

### Office Action Summary

**Application No.**

10/591,356

**Applicant(s)**

HABENICHT ET AL.

**Examiner**

JUNGHWAN M. IM

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 8/2006
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites terms d1 and d2 that are unclear, therefore, confusing to under stand.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Perelli (US 5969408).

Regarding claims 1 and 7, insofar as understood, Fig. 6 of Perelli shows an electronic device whose component body contains at least one stress relief element (9 in the sealing function region 4'), a substrate (6) with an upper surface and side walls, at least one circuit element located on said substrate and at least

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one passivation and/or isolating layer (10) placed on said substrate, whereby said isolating layer covers said at least one circuit element (in the substrate) and/or said substrate and contains a top surface, at least one outer side surface which is located towards a side wall of said substrate and at least one outer edge, which is formed by said top surface and said at least one outer side surface, characterized in that the at least one stress relief element is made out of a ductile material (Al, Al alloy; col. 11, lines 16-18) and simultaneously covers the top surface of said passivation and/or isolating layer and overlaps said outer edge of said passivation and/or isolating layer and extends along said outer side surface of said passivation and/or isolating layer and d 1) contacts the upper surface of the substrate or d2) forms a bridge with at least one circuit element in that way that the stress relief element is linked with the upper surface of the substrate via at least one circuit element.

Regarding claim 2, Fig. 6 of Perelli shows said at least one stress relief element is formed as a sealing ring (col. 2, lines 1-3), therefore, preferably in that way that it extends itself along at least two, preferably three or four side walls of the substrate, thus forming a ring-like structure.

Regarding claim 3, Fig. 6 of Perelli shows said bridge formed by said stress relief element and at least one circuit member extends itself along said outer side surface of said passivation and/or isolating layer.

Regarding claim 5, Fig. 6 of Perelli shows said passivation and/or isolating layer is the passivation and/or isolating layer which is located closest to at least one side wall of said substrate.

Regarding claim 6, Fig. 6 of Perelli shows having at least one stress relief element (8) locally and/or electrically isolated from said first stress relief element.

Regarding claim 8, Fig. 6 of Perelli shows the tensile strength of said passivation and/or isolating layer is higher than the tensile strength of said stress relief element since the passivation is dielectric material and the stress relief element is metal compound.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perelli.

Regarding claim 4, Perelli shows most aspects of the instant invention except "said stress relief element covers the top surface of said passivation and/or isolating layer and/or overlaps said outer edge of said passivation and/or isolating layer and/or extends along said outer side surface of said passivation and/or isolating layer in an amount of  $\geq 70\%$ , preferably  $\geq 80\%$  and  $\geq 90\%$ ." However, it would have been obvious to one of ordinary skill in the art at the time

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of the invention made to have said stress relief element covering the top surface of said passivation and/or isolating layer and/or overlapping said outer edge of said passivation and/or isolating layer and/or extending along said outer side surface of said passivation and/or isolating layer in an amount of  $\geq 70\%$ , preferably  $\geq 80\%$  and  $\geq 90\%$  to prevent the damage in the circuitry, since it would have been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only in routine skill in the art. *In re Aller*, 105 USPQ 233

Regarding claim 9, Perelli shows most aspects of the instant invention except "the tensile strength of said passivation and/or isolating layer is  $\geq 1 \times 10^8$  and  $\leq 1 \times 10^9$  Pa." However, it would have been obvious to one of ordinary skill in the art at the time of the invention made to have the tensile strength of said passivation and/or isolating layer being  $\geq 1 \times 10^8$  and  $\leq 1 \times 10^9$  Pa to accommodate desired structure, since it would have been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only in routine skill in the art. *In re Aller*, 105 USPQ 233

Regarding claim 10, Perelli shows most aspects of the instant invention except "the tensile strength of said stress relief element is  $\geq 1 \times 10^7$  and  $\leq 1 \times 10^8$  Pa." However, it would have been obvious to one of ordinary skill in the art at the time of the invention made to have the tensile strength of said passivation and/or isolating layer being  $\geq 1 \times 10^8$  and  $\leq 1 \times 10^9$  Pa to match the tensile strength of the surrounding layers, since it would have been held that where the

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general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only in routine skill in the art. *In re Aller*, 105 USPQ 233

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUNGHWA M. IM whose telephone number is (571)272-1655. The examiner can normally be reached on MON.-FRI. 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne A. Gurley can be reached on (571) 272-1670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Junghwa M. Im/  
Examiner, Art Unit 2811

/J. M. I./  
Examiner, Art Unit 2811